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# MYCOLOGICAL BULLETIN

## No. 28

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*Columbus, Ohio, February* 15, 1905

THE GENUS PSI-LOC'-Y-BE.—This is a small group of the brown-spored Agarics, and the name from two Greek words, means ***naked head.*** Some authors accent the third syllable, thus, ***Psi-lo-cy'-be.*** In structure this is much like *Col-lyb'-i-a* (white-spored), *Lep-to'-ni-a* (rosy-spored), and *Nau-co'-ri-a* (ochre-spored), but its brown spores separate it from those genera. It has no veil, the stipe is tenaceous and 'continuous' with the pileus, the margin of the pileus is ***at first incurved,*** and the gills are not decurrent; these characters separate it from its near relatives in the group of brown-spored Agarics. Atkinson's Mushrooms Edible and Poisonous gives no species; McIlvaine's One Thousand American Fungi notes two species. Fig. 81 in this BULLETIN is not very common.

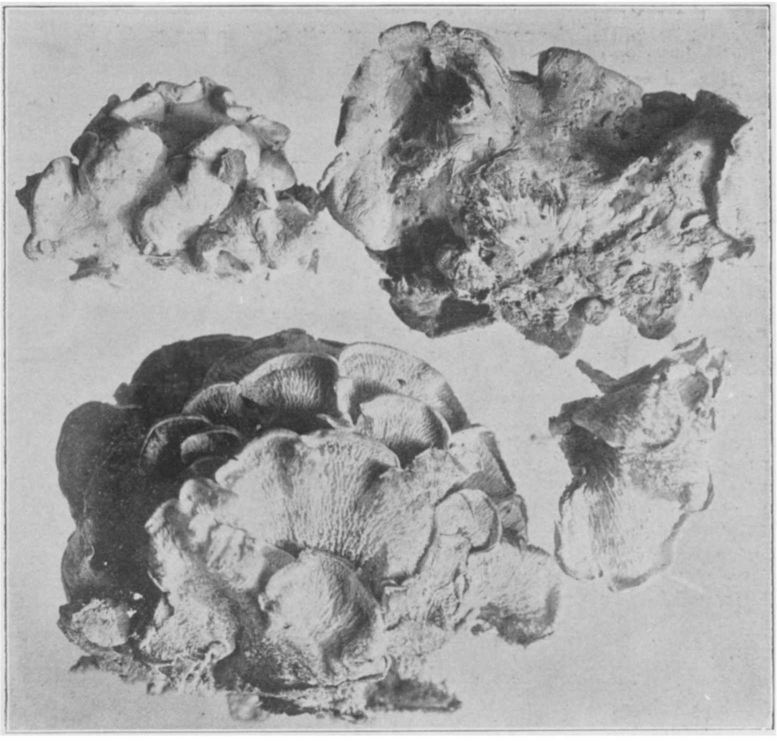

FIG. 90. MER-U'-LI-US RU-BEL'-LUS. REDDISH MER-U'-LI-US. Not inedible, but tough. This species grows on rotten trunks, stumps, etc. It is more or less cespitose, imbricate and sessile, and of a soft and tenaceous texture. It is strongly tinged with red, but becomes pole when dry. The beautiful red-orange specimens from which the cut was made, were collected by Professor J. H. Schaffner and H. H. York, in a woods near Columbus, in October, 1904.

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## MYCOLOGICAL GLOSSARY.

*Egg:* applied to the young mushroom before the volva has ruptured in Phalloids, Amanitas, etc.

*Egut'tulate:* without guttae or guttulae.

*Emar'ginate:* with a notch; gills may be emarginate or with a sinus or notch near the stem.

*Endoperid'ium:* an inner layer of the peridium.

*En'dospore:* the inner coat or wall of a spore.

*Entomog'enous:* growing from insects.

*Epider'mis:* a distinct outer layer.

*Epig'enous:* growing on the surface of a plant.

*Epigae'us:* growing on the ground.

*Epiphyl'lus:* growing on the upper side of the leaf.

*Ep'ispore:* the inner coat or wall of a spore.

*Epithe'cium:* the layer sometimes formed on a hymenium by the union of the tips of paraphyses above the asci.

*Epix'ylous:* growing on wood.

*Erum'pent:* breaking through the epidermis or through the surface of the matrix.

*Excen'tric:* out of the center; as stem not attached to center of pileus.

*Excip'ulum:* outer layer of an *Apothecium.*

*Exoperid'ium:* outer layer of the peridium.

*Ex'ospore:* the outer coat or wall of a spore.

*Ex'planate:* flattened, expanded.

*Exser'ted:* projecting; standing out.

*Exsicca'ti:* dried specimens; sets of specimens.

*Facultative-parasite:* a fungus normally saprophytic but which may live for a time or a part of its life cycle as a parasite.

*Facultative-saprophyte:* a fungus normally parasitic but which may live for a time or a part of its life cycle as a saprophyte.

*Fal'cate:* hooked or curved like a scythe.

*Farina'ceous:* mealy.

*Far'inose:* covered with a white mealy powder.

*Ferru'ginous:* rust-red.

*Filiform:* thread-like.

*Fim'briate:* fringed.

*Fis'tulose:* with stem hollow, or becoming hollow.

*Flab'ellate:* fan-shaped.

*Flabel'liform:* fan-shaped.

*Flac'cid:* soft and flabby.

*Flaves'cent:* turning yellow or yellowish.

*Floc'cose:* woolly, with woolly locks or flocci.

*Floc'culose:* minutely fluccose.

*Fo'veate:* with pits on depressions.

*Fove'olate:* with small pits.

*Free:* said of gills not attached to the stem.

*Fri'able:* easily crumbling.

*Fuga'ceous:* falling or fading early, disappearing.

*Fuligin'eous, fulig'inous:* sooty-brown or dark smoke color.

*Ful'vous:* tawny, yellowish-brown tint.

*Fun'gus* (pl. *fungi*): mushrooms and other "low" plants that are of simple structure, destitute of chlorophyll and consequently must live as parasites or saprophytes.

*Furfura'ceous:* with brown scales.

*Fus'cous:* dingy, brownish, or brown tinged with gray.

*Fu'siform:* spindle-shaped.

*Fusoid:* like a spindle; fusiform.

*Gasteromyce'tes:* those *Basidiomycetes* in which the hymenium is enclosed in a sack-like envelope, as the Puffballs.

[TO BE CONTINUED.]

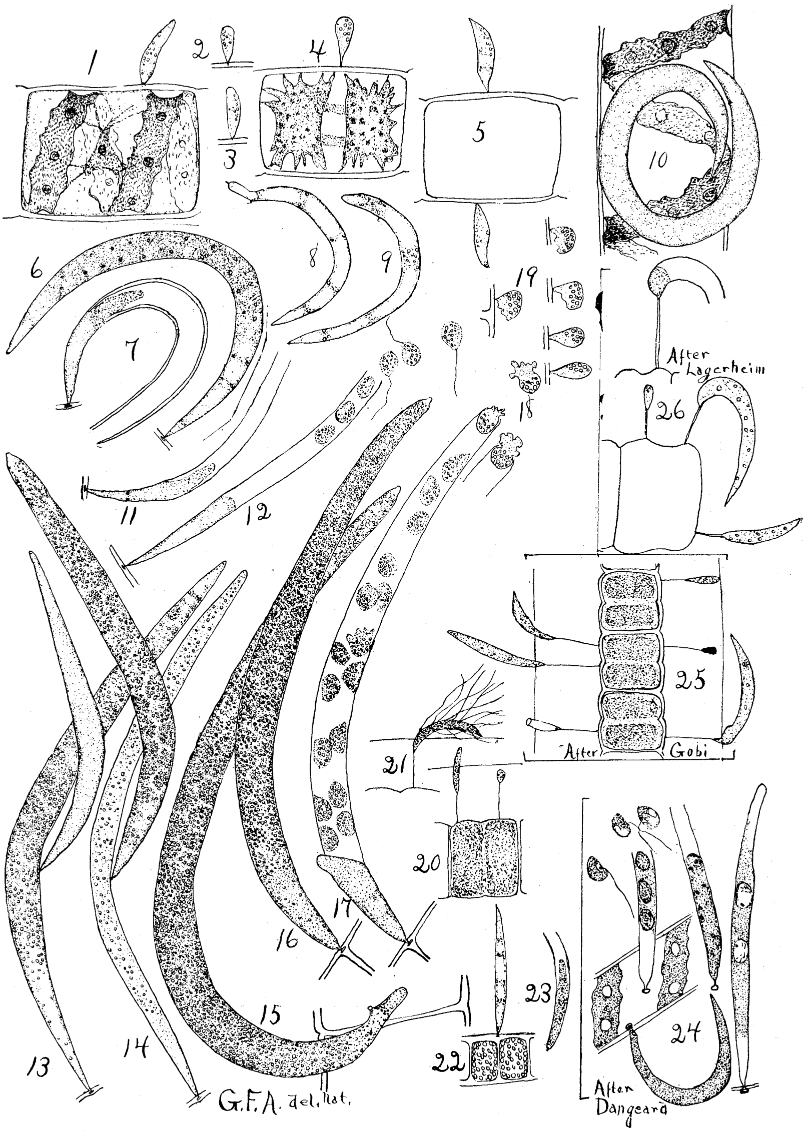

FIG. 91. Three species of HAR-PO-CHYT′-RI-UM.

This plate represents the structure, habit and life-history of a very interesting genus of fungi parasitic on *Algae,* a full account of which was published recently by Professor Atkinson in a German periodical. The plate with notes was reproduced in the Journal of Mycology, whence we transcribe the main portion of the explanation of the plate.

HAR-PO-CHYT′-RI-UM HEDENII, Willie.

Figs. 1, 2, 3, 4, 5, Young stage of plant on *Spirogyra* and *Zygnema,* developed in cell culture. Fig. 6, Mature plant.

Fig. 7, Old plant with two empty sporangia and young tertiary sporangium growing out in the old secondary one.

Figs. 8, 9, Plants half grown showing large and long vacuoles separated by granular protoplasm. Both of these plants became freed from their attachment to the host, the one illustrated in Fig. 8 was attached at two points, one point directly at the base, the other upon the side a short distance from the end. The plant in Fig. 9 was attached at one point on the side, a little distance from the end. Here the short, slender stalk and the disk-like expansion is shown.

Fig. 10, Plant coiled in the form of a serpent on the side of the *Spirogyra* thread.

Fig. 11, Old plant with empty sporangium and young secondary sporangium developing within.

Fig. 12, Mature plant, zoospores escaping, sterile, basal part limited by thin wall which is arched outward slightly because of the endosmotic pressure in the protoplast, and the removal of the pressure within the primary sporangium.

Fig. 13. One individual of *Har-po-chyt'ri-um* attacked by another, the parasitic one one-half the size and age of the host individual.

Fig. 14, Later stage, showing degeneration of the host individual and the increased size of the parasitic individual.

Fig. 15, Mature individual attached at the side a short distance from the base.

Fig. 16, Mature individual attached at the end at a point between two adjacent *Spirogyra* cells.

Fig. 17, Same plant with zoospores escaping. This plant was kept in cell culture and the secondary sporangium from the sterile basal part began to grow before the developed zoospores escaped, and was forced out slightly at one side. The apex of individuals in Figs. 15, 16, show the peculiar condition shortly before formation of zoospores. In Fig. 17, amoeboid movement of some zoospores shown in the sporangium and also escaping.

Fig. 18, The zoospore after escaping, still showing amoeboid movement.

Fig. 19, Five individuals showing stages in attachment and elongation of zoospores. Figs. 6, 7, 11, 12, 13, 14, show the disk-like holdfast and absorbent disk between the outer and inner lamellae of cell wall.

Figs. 1-19 from specimens collected at Ithaca, N. Y. Fig. 24, after Dangeard.

HAR-PO-CHYT'-RI-UM HYALOTHECAE, Lagerheim.

Fig. 20, Showing two young individuals attached to cell of host (Hyalotheca dissiliens), one of the zoospores still within the slime and just having developed the slender stalk; the other individual, the zoospore having elongated and the outer end projecting beyond the slime sheath.

Fig. 21, Mature individual attacked by a filamentous bacterium.

Figs. 20, 21, from specimens collected at Ithaca, N. Y. Fig. 25, after Gobi. Fig. 26, after Lagerheim.

HAR-PO-CHYT'-RI-UM INTERMEDIUM, Atkinson.

Fig. 22, Half grown individual attached to *Conferva utriculosa*, showing disk-like haustorium between outer and inner lamellae of cell wall.

Fig. 23, Mature individual with empty primary sporangium, and young secondary sporangium developing. Figs 22, 23, from material collected at Ithaca, N. Y.

THE GENUS CA-LOS'-TO-MA.—This is a small group of *Gas-tro-my-ce'-tous* fungi having some affinity with the common Puffballs. A very good account is given of the American species by Mr. C. E. Burnap, in the Botanical Gazette, of March, 1887, Vol. 23, p. 180-192, with plate. His study was based mainly on the commonest species. He says: "The fact that this fungus passes its early stages just below the surface of the ground and is usually protruded only after the elements of the *gleba*, or spore bearing portion have disappeared by absorption, renders it difficult to procure in a young condition. At maturity *Colostoma cinnabarinum*, which is the most common American species and may serve as a type for the whole genus, presents the appearance of an ochraceous globose body opening above by a stellate mouth guarded by tooth-like valves, and extending below into a footstalk composed of anastomosing strands. The gleba lies at the center of the globose body, and is surrounded in its younger stages by four layers: (1) the volva, an outer gelatinous layer which soon disappears; (2) the exoperidium, a layer just within the volva, also breaking away at an early stage; (3) the endoperidium, which is the external layer in older specimens; and (4) the spore sac containing the gleba." There are four American species, namely, *Ca-los'-to-ma cin-na-ba-ri'-num*, *Ca-los'-to-ma lu-tes'-cens*, *Ca-los'-to-ma ra-ve-nel'-li*, *and ca-los'-to-ma mi-cro-spo'-rum*. The name *Ca-los'-to-ma*, formed of two Greek words, means *beautiful mouth*. Some authors use the name *Mi-trem'-y-ces* instead —but this is not the original name and hence not tenable.

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